

**Social capital, human capital,
disaster recovery and sustainable
development in a fishing community
in southern Thailand**

Jorge Gonzalez

**A thesis submitted in fulfilment of the requirements
for the degree of Doctor of Philosophy
University of Technology Sydney**

Thesis Part A: Text component
Thesis Part B: Video component in enclosed DVD

2015

Statement of authenticity

I certify that the work presented in this dissertation has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged in the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of student: _____

Date:

Acknowledgements

I would like to thank the people of Koh Mouk village for allowing me to share part of their post-tsunami experience with them. In particular, I would like to thank the members of my adopted family, Cha Poum and Bang Bao, for their generosity, knowledge and hard work. This study benefited a great deal from their many attributes and from our long daily sessions, including mutual language teaching. Thanks also to the three NGOs that facilitated my access to the village, the Sustainable Development Foundation of Thailand, the Save Andaman Network, and the Federation of Southern Fisher Folk. Interactions among the villagers and NGOs originally inspired this research project. Thank you also to my principal supervisor, Professor Carolyn Cartier, my alternate supervisor, Professor Emeritus Tony Moon, and my academic adviser, Dr Barbara Leigh for the guidance, perseverance and support they offered me during this research project as well as to the Faculty of Arts and Social Sciences at UTS for diligent support. Finally, I would like to specially thank my wife, Umarat, and my son, Jayden, for their patience, understanding and unswerving support during this project.

Contents

LIST OF FIGURES	V
ABSTRACT	IX
CHAPTER 1 INTRODUCTION	1
1.1 The 2004 tsunami disaster in Thailand	1
1.2 Trang province	2
1.3 Socio-political and economic context	4
1.4 Methodology	12
1.5 Location and characteristics of Koh Mouk Island	23
1.6 Culture as an aspect of social capital in Koh Mouk	24
1.7 Characteristics of pre-existing and emerging networks	31
1.8 Characteristics of previous development efforts	32
1.9 Summary	35
1.10 Research questions	36
CHAPTER 2 LITERATURE REVIEW	38
2.1 Introduction	38
2.2 Definitions of social capital	38
2.3 Participation and agency	46
2.4 Measuring social capital	50
2.5 Building social capital	52
2.6 Human capital	55
2.7 Sustainable development	58
2.8 Summary	60
CHAPTER 3 JOINT MANAGEMENT OF MARINE RESOURCES	62
3.1 Introduction	62
3.2 Marine Protected Area	63
3.3 Fishing and fishing practices	65
3.3.1 Daily life of the fisherman: part one	66
3.4 The effects of the tsunami on resources and social capital	69
3.4.1 Daily life of the fisherman: part two	75
3.5 Boats, fishing equipment, costs and a changing economy	77
3.5.1 Daily life of the fisherman: part three	83
3.6 The joint management of marine resources	86
3.6.1 Daily life of the fisherman: part four	104
3.7 Summary	109

CHAPTER 4 LAND AND THE EMERGING ECONOMY	111
4.1 Introduction	111
4.2 Land tenure	112
4.3 Land tenure in Thailand	114
4.4 Land tenure in Koh Mouk	120
4.5 NGOs, Capacity building and human capital	130
4.6 Rubber production	142
4.7 Tourism in Thailand	149
4.8 Tourism in Koh Mouk	152
4.9 Summary	160
CHAPTER 5 HOUSING PROJECT AND WOMEN'S GROUPS	162
5.1 Introduction	162
5.2 Housing in Koh Mouk	164
5.3 The community housing project	172
5.5 Women's groups	187
5.6 Women's groups: summary	206
CHAPTER 6 THE NEW SCHOOL CURRICULUM—CAPACITY BUILDING AND CIVIC ENGAGEMENT FOR THE FUTURE	208
6.1 Introduction	208
6.2 Children and the tsunami	209
6.3 Thai school education system	215
6.4 Curriculum development workshop, 2006	218
6.5 The disaster management school camp (20–22 July 2007)	220
6.6 School students and the new constitution	229
6.7 Summary	237
CHAPTER 7 DISCUSSION	239
7.1 Key findings	239
7.2 Discussion	241
7.3 Limitations to the research project	248
7.4 Future research	249
7.5 Conclusion	251
REFERENCES	254
APPENDIX A FIELD TRIP INTERVIEWS	262
List of field trip interviews 2007 in chronological order	262
APPENDIX B RESEARCH INSTRUMENTS	267
Research Instrument #1: Basic personal information plus some indicators of participation, cooperation and capacity building	267
Research Instrument #2. Some indicators of levels of achievement in sustainable practices	269
Research Instrument #3. Focus group topics of discussion.	270

List of Figures

FIGURE I ADMINISTRATIVE MAP OF THAILAND SHOWING LOCATION OF STUDY SITE	XI
FIGURE 2.1: HALPERN'S (2005, P. 27) CONCEPTUAL MAP OF SOCIAL CAPITAL	44
FIGURE 2.2: GRAPHIC REPRESENTATION OF SOCIAL AND HUMAN CAPITAL DYNAMICS	45
FIGURE 3.1: PARTIAL VIEW OF THE AREA MANAGED BY THE VILLAGES OF KOH MOUK. ISLAND AT LEFT DEPICTS SETTLED AREA. CHANGLANG (TOP), KWANTUNGKU (CENTRE) AND NAMRUB (BELOW)	64
FIGURE 3.2: BANG NEUNG'S BOAT (FOREGROUND) WITH OTHER TYPICAL FISHING BOATS AT LOW TIDE ON THE EAST COAST OF KOH MOUK. NOTE ITS DISTINCTIVE LONG-TAIL SHAFT AND CANOPY	67
FIGURE 3.3: KOH MOUK VILLAGE WATERFRONT WITH HOUSES ON STILTS AND BOATS AT THEIR MOORINGS. NOTE THE PATCHES OF CLEARED, CULTIVATED LAND (TOP LEFT) AND THE TYPICAL <i>PAE</i> BUILDING (RIGHT)	69
FIGURE 3.4: BANG SAM AND JA PU YIN SAM FISHING FOR SQUID USING A HAND LINE IN THE VICINITY OF KOH MOUK. NOTE THE PARTIAL VIEW OF THE RADIO ANTENNA (CENTRE) WITH IMPROVISED RADIO CASING	71
FIGURE 3.5: A LOCAL FISHERMAN BUILDS HIS OWN <i>LOOP MUEK</i>	78
FIGURE 3.6: A COMPLETED <i>LOOP MUEK</i>	79
FIGURE 3.7: BANG NEUNG AND JA PU YIN NEUNG DISPLAY A DAMAGED NET WHILE THEY SORT THE CATCH	79
FIGURE 3.8: CHOM ROOM MEETING AT TRANG CITY LIBRARY, WITH SAMAPAN NGO STAFF AT HAND TO PROVIDE TECHNICAL ASSISTANCE	91
FIGURE 3.9: KOH MOUK VILLAGE REPRESENTATIVE, BANG SI, CHAIRS THE CHOM ROOM MEETING IN THE CITY OF TRANG, ASSISTED BY AN IT TECHNICIAN FROM SAMAPAN NGO	92
FIGURE 3.10: CHOM ROOM REPRESENTATIVES FROM DIFFERENT VILLAGES MEETING AT TRANG CITY LIBRARY	93
FIGURE 3.11: SCHOKO MEETING WITH AN NMP REPRESENTATIVE (IN DARK BLUE TOP). BANG SAN, FROM SAMAPAN NGO SITS ON HIS LEFT, BANG SONG IS IN THE LIGHT BLUE SHIRT	100
FIGURE 3.12: AGREED OUTCOMES FROM THE MEETING SPELLING OUT CONCERNS AND ESTABLISHING NORMS FOR COOPERATION, PROCESSES AND PROCEDURES	101
FIGURE 4.1: AERIAL VIEW OF KOH MOUK	124
FIGURE 4.2: SAN NGO PRESENTER AT A LAND CLAIM MEETING 4 JULY 2007	132
FIGURE 4.3: SAN NGO PARTICIPANTS AT A LAND CLAIM MEETING ON 4 JULY 2007	132
FIGURE 4.4: SAN NGO PRESENTER AT A LAND CLAIM MEETING 5 JULY 2007	135

FIGURE 4.5: VILLAGERS ATTENDING THE LAND CLAIM MEETING HELD ON 5 JULY 2007	136
FIGURE 4.6: KOH MOUK FARMER COLLECTING LATEX FROM A RUBBER TREE	143
FIGURE 4.7: KOH MOUK FARMER COLLECTING LATEX TO BE PROCESSED INTO RUBBER SHEETS	144
FIGURE 4.8: RUBBER FARMERS PROCESSING THE LATEX IN KOH MOUK	146
FIGURE 4.9: FARMERS PROCESSING RUBBER SHEETS	147
FIGURE 4.10: RUBBER SHEETS BEING AIR DRIED AND READIED FOR TRANSPORT TO MARKET	147
FIGURE 4.11: MORACOT CAVE'S INLAND BEACH, ONE OF KOH MOUK'S MAJOR TOURIST ATTRACTIONS AND A FORMER SOURCE OF FRICTION BETWEEN LOCALS AND NP AUTHORITIES	155
FIGURE 4.12: FISHERMAN PREPARING HIS BOAT FOR THE UPCOMING TOURIST SEASON	156
FIGURE 5.1: KOH MOUK PIER AND HOMES ON THE SHORELINE TO ITS NORTH	165
FIGURE 5.2: HOMES NORTH OF KOH MOUK PIER AT LOW TIDE	166
FIGURE 5.3: A POST-TSUNAMI HOME STRUCTURE NOT PART OF THE HOUSING PROJECT, MIXING TRADITIONAL DESIGN WITH NEW MATERIALS	168
FIGURE 5.4: KOH MOUK HOUSING PROJECT, COMPLETED IN DECEMBER 2007	185
FIGURE 5.5: JA PU YIN SAM TEACHING LOCAL CHILDREN HOW TO MANAGE THEIR 'BANK' ACCOUNTS	203
FIGURE 6.1: STUDENTS ASSEMBLE IN KOH MOUK SCHOOL HALL AT THE BEGINNING OF THE DISASTER MANAGEMENT CAMP	223
FIGURE 6.2: A GROUP OF STUDENTS FROM THE DISASTER MANAGEMENT CAMP, ACCOMPANIED BY TEACHERS, INTERVIEW A VILLAGER AT HOME	224
FIGURE 6.3: A GROUP OF STUDENTS FROM THE DISASTER MANAGEMENT CAMP INTERVIEW A VILLAGER WHILE HE REPAIRS HIS BOAT	224
FIGURE 6.4: A GROUP OF STUDENTS FROM THE DISASTER MANAGEMENT CAMP PRESENT THEIR FINDINGS TO THE MAIN GROUP	226
FIGURE 6.5: A GROUP OF STUDENTS FROM THE DISASTER MANAGEMENT CAMP PRESENT THEIR FINDINGS TO THE MAIN GROUP	227
FIGURE 6.6: STUDENTS POSE WITH THEIR DISASTER MANAGEMENT CAMP PARTICIPATION CERTIFICATES SURROUNDED BY STAFF	228
FIGURE 6.7: STUDENTS FROM THE DISASTER MANAGEMENT SCHOOL CAMP GATHER FOR FINAL REMARKS FROM NGO STAFF	228

List of abbreviations

<i>ACFID</i>	Australian Council for International Development
<i>ADS</i>	air-dried sheets
<i>AED 2002</i>	<i>Amended National Education Act 2002</i>
<i>AUD</i>	Australian dollars
<i>CBD</i>	Convention on Biological Diversity
<i>CHARM</i>	Coastal Habitat and Resources Management
<i>CTF</i>	Cement Thai Foundation
<i>DOL</i>	Department of Lands
<i>DoNP</i>	Department of National Parks and Plant Protection
<i>FAO</i>	Food and Agriculture Organization
<i>FSF</i>	Federation of Southern Fisher Folk, or SAMAPAN
<i>GIS</i>	Geographic Information System
<i>GISTDA</i>	Geo-Informatics and Space Technology Development Agency
<i>JoMPA</i>	Joint Management of Marine Resources and Protected Areas
<i>KorBorRoe</i>	Committee for Solving State Land Encroachment Conflicts
<i>LTP</i>	Land Titling Program
<i>MDG</i>	Millennium Development Goal
<i>MoNRE</i>	Ministry of Natural Resources and Environment

<i>MPA</i>	Marine Protected Area
<i>NESDP</i>	National Economic and Social Development Plan
<i>NGO</i>	non-government organisation
<i>NP</i>	national parks
<i>NS4</i>	Nor Sor Si (4) Jor (Chanote). The NS4J or Chanote is a certificate of true ownership for land and the only true land title deed in Thailand.
<i>PDA</i>	Population and Community Development Association
<i>RDP</i>	Regional Development Plan
<i>RSS</i>	ribbed-smoked sheets
<i>SAN</i>	Save Andaman Network
<i>Schoko</i>	Schopokit Thay Thale, or Sea Watch Patrol
<i>SDFT</i>	Sustainable Development Foundation of Thailand
<i>SorTorJor</i>	Centre for Fighting Poverty
<i>THB</i>	Thai baht
<i>UN</i>	United Nations
<i>UNDP</i>	United Nations Development Programme
<i>US</i>	United States

Abstract

The Asian tsunami of 26 December 2004 affected millions of people in 10 countries around the Indian Ocean. More than 200,000 people died, tens of millions were left homeless and without livelihoods, and entire communities were dislocated. In Thailand, 408 of the 418 communities along the Andaman Sea were struck by the disaster; 47 of them were severely affected.

This study investigates how enhancement of existing social capital contributed not only to the re-establishment of the tsunami-affected island of Koh Mouk, in Trang Province, Southern Thailand, but also to its long-term sustainable development. The concept of social capital used in the thesis draws on literature from developed and developing communities and the lived experience of the people of the island of Koh Mouk. The study argues that NGO-facilitated capacity building, specific to local needs, enhanced human capital and played a crucial role in social capital building and the desired outcome of enriched sustainable development.

Through the case study of Koh Mouk, the thesis illustrates the ways in which local people drew on existing linkages whilst at the same time building new networks of trust and reciprocity. The case study also

demonstrates how capacity building, resulting in human capital, intersected with social capital to create something greater than the sum of its parts in the local sustainable development efforts. The case study of Koh Mouk explores the crucial areas of the management of marine resources, land use and housing, the participation of women into the money economy, the general economy of the island, the development of formal education through a new school curriculum, and engagement in the mainstream political process. The conclusion draws together these threads to establish the parameters of social capital and to explain its relationship with human capital in the recovery and sustainable development of this island community. ■



Figure i Administrative map of Thailand showing location of study site
Key: rectangle: Trang province; oval: Koh Mouk